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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,633	06/03/2005	Christopher Temple	SC12418EM	4941

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EXAMINER	
CHRISS, ANDREW W	

ART UNIT	PAPER NUMBER
2419	

NOTIFICATION DATE	DELIVERY MODE
12/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/537,633	TEMPLE ET AL.	
	Examiner	Art Unit	
	Andrew Chriss	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, filed September 17, 2008, has been entered and carefully considered. Claims 1, 2, 3, 4, and 13 are amended, and Claims 1-20 are currently pending.

2. Objection to Claims 1 and 2 is withdrawn in light of Applicant's amendment.

3. Rejection of Claims 4, 5, 13, and 14 under 35 U.S.C. 112, second paragraph, is withdrawn in light of Applicant's amendment.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-10 and 12-19** rejected under 35 U.S.C. 103(a) as being unpatentable over Budde et al (United States Patent Application Publication US 2003/0142630 A1), hereinafter Budde, in view of Stacey et al (United States Patent 6,434,154), hereinafter Stacey.

Regarding Claims 1-3, Budde discloses a Flexray communication system comprising a plurality of communication nodes (Figure 1; paragraph 0038) utilizing dynamic communication slots (Figure 2; paragraphs 0039 and 0040). The communications nodes further comprise a time base (Figure 2) divided into multiple consecutive time slots. As shown in Figures 2 and 4, the start and end of a time slot is indicative of a transmission action point. However, Budde may not disclose each timeslot comprising at least two sub-time slots or means for incrementing the communication slot number and incrementing if there is no communication and not incrementing if there is communications. In the same field of endeavor, Stacey discloses a TDMA distribution

network wherein a timeslot is divided in to multiple mini-slots which can be allocated to user traffic on an individual basis (Figure 2; column 4, lines 37-41), wherein the mini-slots comprise a start field for the start of the frame and a 1-byte guard band to indicate the transmission is ending (Figure 3). Further, Stacey contemplates an embodiment wherein multiple mini-cells are concatenated together (column 7, lines 57-63). Therefore, Stacey discloses scenarios wherein a slot number would be increased once the mini-cell is complete (Figure 2) as well as a situation wherein a slot number would not be increased when frames are concatenated together. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the mini-slots disclosed in Stacey with the Flexray system disclosed in Budde in order to decrease packetization delay caused by packet/cell compression.

Regarding Claims 4, 5, 13, and 14, Budde further discloses static communication slots comprising a predetermined number of time slots (Figure 2; paragraph 0039).

Regarding Claims 6 and 15, Budde further discloses dynamic communication slots (Figure 2; paragraphs 0039 and 0040).

Regarding Claims 7 and 16, Budde further discloses that a particular node is assigned to a particular matching time slot (page 6, paragraph 0042).

Regarding Claims 8 and 17, Budde further discloses that upon system start, a check is made as to whether a signal correctly utilizes a time slot already present in the transmission medium (page 6, paragraph 0043).

Regarding Claims 9 and 18, Budde further discloses a node with an associated slot number and only transmitting in the associated slot number (page 7, paragraph 0045).

Regarding Claims 10 and 19, Budde further discloses a node transmitting a correct, error-free message in the associated time slot (page 7, paragraph 0045). As shown in Figures 2 and 4, the start and end of a time slot is indicative of a transmission action point.

Claims 11 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Budde in view of Stacey, as applied to Claims 10 and 19 above, and further in view of Gee et al (United States Patent 5,537,549), hereinafter Gee. Budde and Stacey disclose all of the limitations of Claims 10 and 19, as described above. However, the aforementioned references may not disclose the transmission of a busy signal. In the same field of endeavor, Gee discloses a TDMA system wherein a TX BUSY signal is transmitted as a transmit indicator (column 13, lines 26-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the busy signal transmission disclosed in Gee with the Flexray system disclosed in Budde, as modified above, in order to provide clock synchronization among separate stations connected to a network.

Response to Arguments

6. Applicant's arguments filed September 17, 2008 regarding rejection of Claims 1-10 and 12-19 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive. Applicant states that the combination of Budde and Stacey fails to disclose details of the "full hierarchical structure of the dynamic section of the frame" and "a transmission action point located at a boundary between two of the at least two sub-time slots." Examiner respectfully disagrees. Claims 1, 2, and 3 recite "a time base comprising consecutive timeslots, associated with the dynamic communication slots, each consecutive timeslot comprises at least two sub-time slots

and a transmission action point located at a boundary between two of the at least two sub-time slots such that transmission of each frame of data starts and ends at a transmission action point." There is no requirement in the claim language for a "hierarchical structure of the dynamic section of the frame." Budde discloses a Flexray communication system comprising a plurality of communication nodes (Figure 1; paragraph 0038) utilizing dynamic communication slots (Figure 2; paragraphs 0039 and 0040). The communications nodes further comprise a time base (Figure 2) divided into multiple consecutive time slots. Paragraph 0039 of Budde recites:

> "FIG. 2 shows the time sequence of a TDMA signal transmitted by the node 2 of the communication system. The time frame of the TDMA signal comprises a static part 6 and a dynamic part 7. The static part 6 has four time slots 10, 11, 12, and 13. The dynamic part 7 follows the former. The static part 6 and the dynamic part 7 are repeated periodically in accordance with the frame cycle time T_cyc. The time slot 10 of the static part 6 is provided for the node 0 of the communication system for the purpose of transmission via the transmission medium 5. Similarly, the time slots 11, 12, and 13 are reserved for the nodes 1, 2, and 3 of the communication system."

As shown by the above passage, each time slot is reserved for each of the plurality of the nodes in the communication system; therefore, the end of each timeslot inherent comprises a transmission action point (i.e., transmission from each node must cease at the end of a reserved timeslot). Per MPEP 2112: "The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983)." Further, Stacey discloses dividing a timeslot is in to multiple mini-slots which can be allocated to user traffic on an individual basis (Figure 2; column 4, lines 37-41), wherein the mini-slots

comprise a start field for the start of the frame and a 1-byte guard band to indicate the transmission is ending (Figure 3) (i.e., a transmission action point). Further, Stacey contemplates an embodiment wherein multiple mini-cells are concatenated together (column 7, lines 57-63), therefore creating consecutive timeslots. Further, Applicant states that Stacey relates to a "very different aspect of the field of communications to the present invention or Budde." Examiner respectfully disagrees. Budde discloses a FlexRay communication system, which incorporates TDMA for timeslots. Stacey is relied upon for disclosure of consecutive timeslots in a distribution network utilizing TDM/TDMA. As supported above, Budde and Stacey are therefore in the same field of endeavor, as required by MPEP 2141: "(P)rior art that is in a field of endeavor other than that of the applicant (as noted by the Court in KSR, "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one", 550 U.S. at ___, 82 USPQ2d at 1396 (emphasis added)), or solves a problem which is different from that which the applicant was trying to solve, may also be considered for the purposes of 35 U.S.C. 103." Applicant further states that that the motivation for combining Stacey with Budde is "conclusionary" and "does not set forth how the combination of the two references would obtain the stated benefit, namely improved media arbitration." Per MPEP 2143: "The Courts have made clear that the teaching, suggestion, or motivation test is flexible and an explicit suggestion to combine the prior art is not necessary. The motivation to combine may be implicit and may be found in the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. Id. at 1366, 80 USPQ2d at 1649. "[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the improvement' is

technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal-and even common-sensical-we have held that there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him capable of combining the prior art references." Id. at 1368, 80 USPQ2d at 1651." Per MPEP 2144: "The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. In re Sernaker, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983). >See also Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick, 464 F.3d 1356, 1368, 80 USPQ2d 1641, 1651 (Fed. Cir. 2006) ("Indeed, we have repeatedly held that an implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal—and even common-sensical—we have held that there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves.")." Stacey discloses that packetization delays in ATM networks "represent a significant and sometimes unacceptable

proportion of any delay budget" (column 2, lines 35-38). Therefore, the motivation to combine cited above for combining Stacey with Budde is supported by the prior art.

For the reasons set forth above, rejection of Claims 1-10 and 12-19 under 35 U.S.C. 103(a) is maintained.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Chriss whose telephone number is (571)272-1774. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Chriss
Examiner
Art Unit 2419
12/17/2008

/Hassan Kizou/
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